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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,965	11/21/2003	Yang Hwan No	K-0554	8019

7590 01/09/2007
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EXAMINER

PERRIN, JOSEPH L

ART UNIT	PAPER NUMBER
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1746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/717,965

Applicant(s)

NO ET AL.

Examiner

Joseph L. Perrin, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 9-13 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Upon further consideration, the Restriction Requirement mailed 16 October 2006 has been withdrawn. Accordingly, claims 1-20 will be considered on the merits.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 14, it is unclear what is meant by "third hook" since claims 1-2 do not recite a first and second hook. It appears the claim should depend from claim 6 which provides antecedent basis for a first and second hook. Clarification and correction are required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5 & 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,227,835 to CONRATH. Re claim 1, CONRATH discloses a washing machine (10) comprising a cabinet (11), a tub (12) suspended in the cabinet and having a drum (14) provided in the tub and rotatably driven by a motor (not numbered), a sensor assembly (21) including a sensing mechanism (22/23) capable of sensing transient vibration of the tub, and a control unit (29) capable of stopping rotary power based on the sensed vibration (see Figure 1 and relative associated text). Re claims 2-3, 5 & 19, CONRATH further discloses the sensor assembly includes a bracket assembly having a first hole wherein a coupling member (screw) penetrates into the cabinet and is inserted through the hole (see screw coupling the bracket and cabinet in far right portion of Figure 3), sensing mechanism (22) having an arm hinge-coupled to the bracket assembly via a hinge shaft and second hole, and the arm having a wall body on the upper surface (see Figures 3-4 and relative associated text). Re claims 15-18, CONRATH further discloses the arm having a spring (50) for absorbing shock transferred to the arm, a stopper (33) with reinforcement rib (44). Accordingly, recitation of CONRATH reads on applicant's claimed invention.

6. Claims 1-2, 15-17 & 19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,850,746 to LEE. Re claim 1, LEE discloses a conventional washing machine with cabinet (16), tub (15) suspended in the cabinet and including a rotatable vertical axis drum (3) (rotary motor for conventional washing machine considered common knowledge), a sensor assembly (4a) and control unit (21) for

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switching off power (i.e. the motor) upon sensed tub imbalance/vibration (see Figures 1-4 and relative associated text). In Figures 2A-2B, LEE discloses the sensor assembly including a bracket assembly attached to the cabinet, an arm (26) hinge-coupled to the bracket with sensor mounted on the arm (claim 2). Re claims 15-17, LEE further discloses a spring mechanism for biasing the arm (i.e. absorbing shock transferred from the arm when the tub contacts the arm) as well as a stopping mechanism (see Figures 2A-2B and relative associated text).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over CONRATH in view of U.S. Patent Publication No. 2003/0160141 to YAMANASHI. Recitation of CONRATH is repeated here from above. CONRATH teaches the claimed invention except for the claimed bracket hook inserted into an aperture of the cabinet to temporarily fix the bracket to the cabinet. YAMANASHI teaches that it is known to provide a bracket with a hook (25) for providing temporary hold of a weighted object while the object is mounted (see paragraph [0034]). The position is taken that it would have been within the level and skill of one having ordinary skill in the art at the time the invention was made to provide the bracket of CONRATH with the hook of YAMANASHI to provide temporary hold of the bracket to the cabinet while the bracket is being mounted to the cabinet.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over CONRATH in view of U.S. Patent No. 4,884,845 to SHMALE *et al.* (hereinafter "SHMALE"). Recitation of CONRATH is repeated here from above. CONRATH teaches the claimed invention including a hinge shaft/bolt but does not expressly

disclose a washer with the bolt. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the hinge bolt of CONRATH with a washer since applicant has not disclosed that a bolt with a washer, which is considered common knowledge as evidenced by SCHMALE, solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with other bolt/washer configurations and the selection of any of these known equivalents to provide hinge coupling would be within the level of ordinary skill in the art.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of

copending Application No. 10/722,459. Although the conflicting claims are not identical, they are not patentably distinct from each other because the washing machine of the conflicting claims including the vibration sensor are substantially cumulative in scope to the instantly claimed invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

14. Claims 6-7, 9-13 & 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

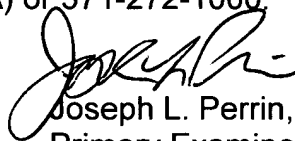
15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent Publication No. 2004/0154351 to KIM *et al.*, U.S. Patent Publication No. 2004/0025545 to CHANG, U.S. Patent No. 6,422,047 to MAGILTON, U.S. Patent No. 6,292,966 to LIM *et al.*, U.S. Patent No. 5,685,038 to SMITH *et al.*, U.S. Patent No. 4,098,098 to ALTNAU, U.S. Patent No. 3,803,881 to GETZ *et al.*, & U.S. Patent No. 3,504,777 to WAUCH, each disclosing a washing machine having vibration sensing systems.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is

(571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Joseph L. Perrin, Ph.D.
Primary Examiner
Art Unit 1746

JLP